

Small Business Economic Impact Statement for Amendment to Chapter 173-546 WAC Instream Resources Protection Program Entiat River Basin Water Resources Inventory Area (WRIA 46)

Department of Ecology

February 2005 # 05-11-011

Small Business Economic Impact Statement

For

Amendment to Chapter 173-546 WAC

Instream Resources Protection Program

Entiat River Basin

Water Resources Inventory Area

(WRIA 46)

Prepared by:

Washington State Department of Ecology

February 2005 # 05-11-011

Small Business Economic Impact Statement For Chapter 173-546 Water Resources Management Program Entiat River Basin Water Resources Inventory Area (WRIA) 46

Prepared by: Washington State Department of Ecology February, 2005

The Washington State Department of Ecology's (Ecology) Water Resources Program is proposing to adopt a Water Resources Management Program for the Entiat River basin to:

- Retain perennial rivers, streams, and lakes in the Lower and Upper Entiat River basin with instream flows and levels necessary to protect and preserve instream values, and instream flows;
- Provide water to satisfy domestic, stockwatering, outdoor irrigation, commercial agriculture and commercial and light industrial uses via the establishment of a reservation of uninterruptible water supply;
- Provide for a maximum allocation of surface-waters of the Entiat River watershed during periods of high flow; and,
- Set forth Ecology's policies to guide the protection, utilization and management of Entiat River basin surface water and interrelated groundwater resources for use in future water allocation decisions.

The Entiat River Basin is designated as Water Resource Inventory Area 46 (WRIA 46) in chapter 173-500 Washington Administrative Code (WAC). The proposed rule is chapter 173-546 WAC. Ecology is developing and issuing this Small Business Economic Impact Statement (SBEIS) as part of its rule adoption process and pursuant to Chapter 19.85 RCW. Ecology intends to use the information developed in the SBEIS to ensure that the proposed rule is consistent with legislative policy.

DESCRIPTION AND PURPOSE OF THE SBEIS

The objective of this SBEIS is to identify and evaluate the various requirements and costs that the proposed rule might impose on business. In particular, the SBEIS examines whether the costs on businesses that might be imposed by the proposed rule impose a disproportionate impact on the State's small businesses. The specific purpose and required contents of the SBEIS is described in Revised Code of Washington (RCW) 19.85.040.¹

¹ Due to size limitations relating to the filing of documents with the Code Reviser, the SBEIS does not contain the appendices that further explain Ecology's analysis. Additionally, it does not contain the raw data used in this analysis, or all of Ecology's analysis of this data. However, this information is being placed in the rule-making file, and is available upon request.

1. DISCUSSION OF COMPLIANCE COSTS FOR WRIA 46

BUSINESSES

INTRODUCTION

The evaluation of the impacts of the proposed rule is based on analysis and comparison of water right management before and after the effective date of the rule. Current water right administration is based on an extensive and complex legal and administrative framework. The framework includes administrative procedures for applications for both new water rights and changes to existing water rights, and the use of water by permit-exempt wells (RCW 90.44.050). Implementation of Chapter 90.22 RCW, Chapter 90.54 RCW and Chapter 90.82 RCW are also part of this legal baseline. In proposing a reservation of water, the proposed rule creates new conditions that must be considered when making future water right decisions. A brief description of compliance requirements is provided below. A detailed description of water management under the existing and proposed rules can be found in Appendix B.

A significant component in describing the impacts of the proposed rule involves describing the baseline from which the change caused by the rule is measured. In the case of the Entiat River, there is no existing in-stream flow rule in place. However, the Watershed Planning Act, requires that Ecology complete an instream flow rule when planning units propose flows and meet the requirements of RCW 90.82.080. It also indicates that the rule is not considered "a significant legislative rule." The planning unit has met these requirements and so the baseline considered in this document assumes an instream flow rule is adopted (as required by law) similar to the proposed rule but without the proposed reservation.

However, it is possible that an instream flow rule would not be adopted even if the proposed rule was not adopted (e.g. if legal action precluded basic instream flow rulemaking). In this case, the existing water management scenario would continue into the future. In an effort to better inform the rulemaking, Ecology has elected to consider the possibility that the existing management scenario would continue as an alternative baseline. This analysis can be found in Appendix C.

WATER RIGHT ADMINISTRATION UNDER THE RULE

The proposed rule (WAC 173-546) will create a water right for instream resources, protected from impairment by those junior in priority date to the instream flows. The rule will also create a reservation of water for out-of-stream uses senior to the instream flows and clarifies other requirements that might affect future uses. Expected impacts to water management include the following:²

<u>Surface Water:</u> The decision process for surface water rights will be similar after the proposed rule as before. Under the baseline, Ecology would grant water rights that would be required to curtail use when the senior minimum instream flows are not being attained.

² As mentioned previously, the baseline for the analysis assumes that there is a basic instream flow rule in place that meets the requirements of RCW 90.82.

Under the proposed rule, all new surface water rights that utilize the reservation will receive an uninterruptible supply of water. New surface water rights that do not use the reservation as their source, would be "junior" to the instream flow levels and would be required to curtail withdrawing water when minimum flows are not met in the surface water source. This is not likely to represent a significant change under the proposed rule since under both scenarios new out-of-stream uses would be subject to similar instream flow provisions, with the exception of the availability of senior water from the reserve provided in the proposed rule. Additionally, under both the baseline and the proposed rule, applications for new consumptive surface water rights could potentially be approved if it is "clear that overriding considerations of the public interest will be served."

<u>Groundwater:</u> The decision process if the proposed rule is adopted and in effect, is the same as under the baseline, with the notable exception of "senior" water made available from the reserve in the proposed rule. Groundwater applications in hydraulic continuity with the Entiat River would be subject to the instream flows under the baseline or the proposed rule unless they proposed to obtain water via the reservation under the proposed rule. Under both the proposed rule and the baseline, a use may be approved if it is "clear that overriding considerations of the public interest will be served."

Based on the analysis and recommendations in the Entiat WRIA management plan regarding hydrogeology of the basin, and the location and depth where groundwater withdrawals generally occur, future groundwater withdrawals have a high likelihood of capturing water that would result in impacts to surface water flows and levels in the Entiat River Basin. The proposed rule does not create the need for, and does not change the standards for, the analysis regarding whether these impacts cause impairment. However, businesses that initiate new agricultural, commercial, or manufacturing projects relying on wells for process water would be required to suspend water use during periods of low flows, develop storage mechanisms or develop mitigation strategies acceptable to Ecology that allow them to mitigate their impacts if water is obtained outside the reservation. This would be the case under the baseline and would not represent an impact of the proposed rule. Both the proposed rule and the baseline allow for an applicant for a new groundwater use to demonstrate that the proposed water use is not in hydraulic continuity with the surface waters of the Entiat River. Both the proposed rule and the basic instream rule would allow for an applicant to mitigate for any impacts to instream flows, thus enabling continuous use of water out-of-stream.

<u>Permit-Exempt Groundwater:</u> A reservation of ground water is proposed for the future uses of residential, commercial, industrial and agricultural uses and provides a management framework for these types of withdrawals. For businesses interested in using an exempt well, there would be several alternatives. Applicants could solicit a hydrogeologist to certify that a well would not cause impairment of a water right in areas where hydraulic continuity between the surface water and groundwater is not likely. This would allow an applicant to develop a well as though the proposed rule or baseline was not in place, but at the additional cost of the analysis. For wells that would be drilled in areas where they are likely to be in hydraulic continuity with streams with instream flows, such that impairment would result, options include obtaining water from the

reservation or accepting an interruptible water right with corresponding curtailment or storage. Under the proposed rule, the applicant would only be able to get uninterruptible permit-exempt well water through the reservation. Those that attempted to use a permit-exempt well outside of the reservation would be required to curtail water use during low flow periods or be denied. Under the baseline, there would be no provision for exempt wells during low flow periods and legally they would be required to curtail use during these periods or they would be denied.

<u>Changes or Transfers of Water Rights</u>: Existing water rights will continue to be changed or transferred as permitted by Chapters 90.03 and 90.44 RCW and the process would be the same with the proposed rule as with the baseline. Transfers of surface water rights would be evaluated considering the instream flow right as they would be under the baseline. Requirements related to changes in the point of diversion from a surface point to a ground water point, if it is from the same water source, are the same in the baseline and the proposed rule.

<u>Reservation of Water</u>: The reservation of water, use of water under the reservation, and associated conditions for that use, are all part of the rule proposal. In large measure, the reservation will allow residential, commercial, industrial and agricultural development to continue as before with the benefit of having a continuous, reliable source of water during low flow periods, except for a few restrictions. These restrictions include irrigation limitations and the finite quantity of the reservation. Domestic water use must also meet efficiency standards.

IMPACTS TO BUSINESSES IN WRIA 46

The primary impact to businesses of the proposed rulemaking will likely be the creation of a reservation for future allocations. Existing water rights holders will not be directly affected. In general, the economic costs to businesses are determined based on the business impacts from having less water in the river, but more available for out of stream use. Having the reservation makes more water available for out of stream uses than would have been the case under the baseline and so it is likely most businesses will be positively affected. The only exception to this would be businesses that utilize water in the river. More specifically, the following potential impacts are possible.

1. Impacts to businesses depending on instream flows

As mentioned above, a reservation is to be created from which those seeking water for domestic, stockwatering, commercial agricultural and commercial/light industrial uses and meeting the proposed requirements will be able to obtain water in the future. Accessing the reservation will allow entities to use water for various uses during low flow periods. This may slightly reduce the amount of water in the river during certain low flow periods during certain years and could potentially indirectly impact instream benefits such as ecosystem services, recreation, etc. For businesses that provide guide services such as rafting, fishing and bird watching, or those dependent on dilution for waste removal, there could be a very minor impact. However, discussions with local interests indicate that little, if any, impact from the proposed flow reductions will result from establishment of the reservation.

2. Creation of the reservation: Under the baseline, any groundwater withdrawal, including those via exempt wells in continuity with the Entiat River or its tributaries, would be legally required to curtail use during low flow periods. Under the reservation, some or all of the future needs of residential, commercial, industrial and agricultural uses could be met even during low flow periods. For businesses developing land for residential construction, or requiring process or irrigation water, the ability to use water during low flows should be a net benefit from this rulemaking. The reservation of water for stockwatering will provide year-around access to water for new stockwatering uses, except for feedlots and other activities which are not related to normal grazing uses. Under the baseline, stockwater accessed via permitted or permit-exempt wells would be legally required to curtail use during low flow periods. The change in the rule should be a net benefit to stock-related businesses.

3. Impacts to existing permitted water rights

Allowing access to water from the reservation that allows water withdrawals could affect the value of existing permitted water rights held by some businesses. The exact effect will depend on the allowable use, volume and point of diversion of existing rights, existing uses and the desired uses and volumes of proposed rights.

COST TO FIRMS AND REQUIRED PROFESSIONAL SERVICES

As mentioned above, the impacts of the proposed rule will most likely be experienced by those business entities that depend on water in the river or the beneficial impacts to those businesses that would obtain water from the reservation. The following cost analyses required in Chapter 19.85 RCW has been provided:

Reporting and Recordkeeping: No additional reporting or recordkeeping will be required.

Additional Professional Services: Some may save the costs associated with mitigation options such as construction of storage tanks and associated water system facilities requiring engineering design services associated with interruptible water rights if access to the reservation allows them to avoid these requirements. Those that would have transferred rights might avoid the use of hydrogeologists, biologists, engineers and attorneys.

Costs of Equipment, Supplies, Labor, and Increased Administrative Costs: No additional equipment, supplies, labor or administrative costs are anticipated. Although, as mentioned above, if some applicants are able to avoid a more sophisticated conservation or water use system, this may decrease the cost of professional services and equipment.

Other Compliance Requirements: As mentioned above, potential adverse impacts may be incurred by firms that depend on instream activities and potentially those that hold existing permits. The impacts to instream users would be specific to the firm, but is unlikely to be significant since few firms are dependent on instream flows.³

³ Conversations with local interests indicate few commercial activities dependent on instream flows.

Existing water right holders could be impacted if the value of their water right changes as a result of this rule. This would ultimately only affect those that want to transfer or lease a right and only for the period of the reservation. The exact cost impact is difficult to determine since it depends on many factors. Only two transfers have been executed in the past ten years. If this rate continues, it is unlikely to be significant. Moreover, the reservation would tend to increase the availability of water relative to the baseline and decrease the incentive to transfer water in the future.

Creation of the reservation should be a net benefit for most businesses that need water. Water that is not available during low flow periods is damaging to any business that needs it for its own use or who are looking to develop residential or commercial properties. In order to have water available during low flow periods under the baseline, water would have to be obtained though leases, transfers or on-site storage. On-site storage for a low flow period can cost approximately \$10,000-\$15,000⁴ for a typical residence and the proposed rule would allow this cost to be avoided for those that utilize the reservation. For other users, the cost of storage would likely preclude it as an option. Agricultural users would likely be required to purchase or transfer water absent the proposed rule. The median quantity of irrigation water requested from pending applications amounts to approximately 13 acre-ft. Agricultural water ranges in value from \$40-\$120/ acre-ft. Using a mean value of \$80/acre-ft would yield an avoided cost of between \$960 and \$1040 per year for every low flow year. This analysis assumes that water would be readily available to be transferred or leased. If this was not the case, then prices would likely be significantly higher. The stockwatering reservation would likely yield an avoided cost reflecting the quantity required at a similar unit cost as for agriculture. For those that do not require water for domestic needs during low flow periods, an interruptible right remains an option under both the current and proposed rule.

2. REVENUE IMPACTS AND DISTRIBUTION OF COSTS INTRODUCTION

RCW 19.85.040 requires that additional analysis of impacts be provided. Specifically, the analysis should include whether compliance with this rule will cause businesses to lose sales or revenue and whether the proposed rule will have a disproportionate impact on small business. It is the purpose of this section to evaluate the proposed rule to consider these requirements.

REVENUE IMPACTS

As noted previously, the most likely significant impacts are associated with decreased flows in the river and the creation of the reservation. The reduction of flows in the river is unlikely to significantly affect any firms along the Entiat. However, those firms that will now be able to access water from the reservation will experience a benefit from being able to access water without constructing expensive storage alternatives or purchasing or

⁴ Cost assumes two-5,000 gallon underground potable-water rated tanks.

⁵ Based on Columbia River Basin Project for Water from "Economics of the Columbia River Initiative."

leasing rights as would be required under the baseline. An instream flow rule would limit uses in exempt wells to periods of time when flows are adequate. It is estimated that summer flows will not meet the minimum instream flows in a majority of years and that storage would likely be required for most domestic uses absent the rule. In that sense, the rule will represent a negative cost (net benefit) to firms. The net benefit to firms is the value of avoiding expensive storage, or purchasing or leasing water rights or other mitigation alternatives to access water during periods of low flow. This will likely lower costs to some potential water users and to that extent, may increase revenues.

Existing water rights holders might see some reduction in the value of existing water rights and this would lower revenues. However, as mentioned above, this effect is likely to be relatively small and is not further considered.

DISTRIBUTION OF COMPLIANCE COSTS

The distribution of compliance costs can be analyzed by evaluating existing businessowned developable parcels. The proposed reservation would yield a net benefit to any business-owned parcels in the watershed under the baseline since on-site storage, leasing or transfers would not have to be provided. The exact amount and distribution of the benefit will depend on the size of parcels, ownership, firm size and zoning and yields the distribution of costs in Table 2.1.

Table 2.1. Distribution of Compliance Benefits (Avoided Costs) for Business-Owned Exempt Well Development⁶

	Number of Firms ⁷	Average Employment (No. of Employees)	Average Benefit per Employee 8(\$1000)	Median Benefit Per Employee (\$1000)
Small Firms	2	1-3	\$35.0	\$35.0
Large Firms	5	340-1170	\$9.2	\$6.7

The values listed in Table 2.1 represent the average avoided storage costs (net benefits) for small and large firms assuming full residential build-out using permit-exempt wells and all business-owned parcels where employment values could be obtained. As can be seen the median avoided cost for small firms exceeds that for large firms by a ratio of 5.2:1. It is important to note that the large avoided cost is based the assumption of full development of all parcels. If a firm (small or large) developed only a portion of their parcels, then the avoided cost would be smaller.

Pending new applications for water rights were also evaluated to consider the impacts of the proposed rule. All new applications for water rights are individual applications with the exception of one. Thirty of the thirty-two indicated irrigation as at least part of the purpose of their request. Although chapter 19.85 RCW does not necessarily include individual farmers as business-entities, the reservation should be a benefit to most of

_

⁶ Costs assume full development of all business-owned developable parcels.

⁷ The total number of firms represents all businesses located in the county listed as owner of the parcel and where Employment Security data could be located.

⁸ Cost comparisons use the largest 10% of firms required to comply.

these uses that will allow them to avoid purchasing rights from other locations. Given these are individual farmers; the impacts would be disproportionately beneficial to these small entities.

Overall, the data suggests that the impacts of the proposed rule will be disproportionately beneficial to small businesses under the baseline.

CONCLUSIONS

All firms of all sizes that elect to use the reservation are likely to experience a negative cost (net benefit) from the rule and it appears the rule will disproportionately benefit small businesses.

3. ACTIONS TAKEN TO REDUCE THE IMPACT ON SMALL BUSINESS

As noted above, it is unlikely that there will be significant adverse impacts on businesses (small or large) as part of this rulemaking under the baseline. Therefore no specific measures have been taken to reduce or mitigate these rule impacts. In general, mitigation options, and allowed uses under the reservation should provide for flexibility in obtaining water for beneficial uses. There are no additional recordkeeping, reporting requirements or inspections and compliance timetables and fine schedules are not altered by the proposed rule.

4. HOW WAS SMALL BUSINESS INVOLVED IN THE DEVELOPMENT OF THIS RULE?

The proposed rule has been developed as an outcome of the watershed planning process. This is an open process allowing for comment and participation by all entities as the project has proceeded. After the filing of the CR-102, official public hearings will be held to consider the rule and allowing small businesses to provide additional input.

5. LIST OF INDUSTRIES REQUIRED TO COMPLY

No industries are required to comply with the proposed rule unless they seek to obtain new water rights in the covered area. However, requirements affecting water use are likely to translate into changes in property values based on impacts to the highest valued uses in the watershed. As such, existing business owners of undeveloped property are likely to be the industries that will be required to "comply" either directly in terms of attempting to acquire water or indirectly in terms of changes in asset values. Therefore, the following list is provided indicating Standard Industrial Codes (SIC) codes for existing developable properties in the Entiat watershed.⁹

Table 5.1. Industries Likely Required to Comply with the Rule

⁹ The table was constructed based on data provided by the Chelan County Assessor and by the Washington State Employment Security Department.

SIC	Description	SIC	Description
Code		Code	
0175	Deciduous Tree Fruits	6035	Federal savings institutions
2631	Paperboard mills	6162	Mortgage banks and correspondents
5148	Fresh fruits and vegetables	6211	Security brokers and dealers
6029	Commercial banks, nec.	8742	Management consulting services

APPENDIX A - REFERENCES

- 1. Chelan County Conservation District, <u>Entiat Water Resources Inventory Area</u> (WRIA) 46 Management Plan, October, 2004
- 2. Huppert, Daniel, Gareth Green, William Beyers, Andrew Subkoviak and Andrew Wenzl, Economics of Columbia River Initiative, 2004
- 3. RS Means, <u>Building Construction Cost Data</u>, 55th Annual Edition, 1997

APPENDIX B-RULE ANALYSIS

INTRODUCTION

Ecology anticipates that a significant portion of the proposed rule's implementation will be related to water rights and water management. Water rights and water management are governed by a series of statutes and court cases. Compliance with the rule will occur primarily within the context of complying with state water laws. Evaluating the impacts of the proposed rule involves describing the baseline from which the change caused by the rule is measured. The baseline includes water right administration for both new and changes of water right applications under chapters 90.03 and 90.44 RCW and case law. It also includes the use and development of water by permit exempt wells pursuant to RCW 90.44.050. For the consideration of instream values, chapter 77.55 RCW and current implementation of chapter 90.22 and 90.54 RCW as they relate to water rights and water management is also part of the baseline.

A significant component in describing the impacts of the proposed rule involves describing the baseline from which the change caused by the rule is measured. In the case of the Entiat basin, there is no existing in-stream flow rule in place. The Watershed Planning Act, requires that Ecology complete an instream flow rule when planning units propose flows and meet the requirements of RCW 90.82.080 and indicates that the rule is not considered "a significant legislative rule." The Planning unit has met these requirements and so one baseline could be considered to be an instream flow rule similar to the proposed rule but without the proposed reservation. However, it is always possible that an instream flow rule would not be put forward even if the proposed rule was not adopted. In this case, the existing water management scenario would continue into the future. In order to better inform the rulemaking, Ecology has elected to consider a baseline assuming an existing instream rule is in place. Another baseline assuming no instream rule is in place is described in Appendix C.

In proposing the creation of the reservation of water, the rule creates a mechanism that allows for future uninterruptible domestic, commercial, industrial and stockwatering uses. Consideration of water availability is part of the water right application process. The four-part test for a water right from RCW 90.03.290 remains unchanged and includes examination of water availability. The proposed rule will quantify water availability for some uses through the reservation and establish new water rights for this watershed. Conditions may be imposed on a future water right to implement the rule. How the proposed rule changes consideration of requests for new water and or changes to water rights and in particular how environmental values are reflected in the decisions prior to and after the rule are described below.

BASELINE DEVELOPMENT

Under State water law, the waters of Washington collectively belong to the public and cannot be owned by any one individual or group. Proposed diversions or withdrawals of any amount of water for any use from all surface or groundwater sources require a water right be obtained. A water right is a legal authorization to use a certain amount of public

water for a designated purpose. A water right is necessary if you plan to divert or withdraw any amount of water for any use from:

- Surface waters (water located above ground) such as lakes, rivers, streams and springs.
- Ground waters (water located under ground).

Although all uses require a water right, certain groundwater withdrawals are exempt from permitting requirements. An application for a ground water right permit is not required if your daily ground water use from a well or wells will be 5,000 gallons a day or less for any of the following combinations of uses:¹⁰

- Stockwatering.
- Single or group domestic purposes such as drinking, cooking and washing.
- Industrial purposes.
- Watering a lawn or noncommercial garden that is a half acre or less in size.

Although the law allows an exemption from the water right permit process in these cases, all other water laws and regulations still apply to these uses.

Washington water law requires users of public water to receive approval from the state prior to the actual use of water. Approval to put water to beneficial use is granted in the form of a water right permit. The proposed use must meet four primary requirements (known as the "four-part test") in order for Ecology to issue a water right permit:

- 1. The water will be put to beneficial use;
- 2. There will be no impairment to existing rights;
- 3. Water is available; and
- 4. The water use will not be detrimental to public welfare.

Ecology conducts an investigation of the application to confirm the information on the application and applies the four-part test mentioned above. In applying this four-part test, some of the facts Ecology considers are based on the particular water source, existing water rights, and watershed. These include the instream flow recommendations made in the past, instream flow rules (if they exist) and whether and how groundwater is connected to surface water sources. The results of the investigation and four-part test review are summarized in a report of examination (ROE). The ROE contains Ecology's staff-level decision on a water right request. Ecology can recommend a denial, an approval, or an approval with conditions. Once approved by an Ecology decision-maker, Ecology issues a final ROE and orders approving the ROE. If approved, the permit will likely have specific conditions.

Instream flow considerations within water right application administration has been the law since 1949 (See RCW 77.55.050). Generally, a flow of water sufficient to support game fish and food fish populations must be maintained at all times in the streams of this

¹⁰ Publication #F-WR-92-104.

state. Under that statute, Ecology sends copies of water right applications to the Washington Department of Fish and Wildlife (WDFW) to see if approving the proposed withdrawal would compromise game and food fish populations. In 1969, by adoption of Chapter 90.22 RCW (Minimum Water Flows and Levels) and again in 1971, by adoption of the Water Resources Act, the Legislature added additional policies for instream flow considerations and the instream flow rule program. Instream flows once adopted by rule are water rights protected from impairment from those rights junior in priority date to the instream flows (RCW 90.03.345). Ecology is prohibited, by statute, from allowing withdrawals of water that conflict with an instream flow regulation, unless there is a clear showing of overriding consideration of public interest (RCW 90.54.020(3)(a)).

The consideration of a proposed withdrawal's impact on fisheries resources and flow is performed by professional fisheries biologists based on professional judgment using existing data and/or knowledge of the basin. If there is concern that approval of use might compromise instream values, an application can either be denied or approved with use conditioned on minimum flow levels. A junior water right must stop use, if a senior right is not satisfied. Consequently, rights conditioned upon minimum flow levels are interruptible water rights that must be discontinued during times when streamflows are below the established flow value. The current water management program can be broken down as follows:

Surface Water Allocations (water right permit)

New applications for surface water rights are forwarded to the WDFW for review and comment. The four-part test is applied. If there is a concern that water uses might adversely impact fish, WDFW will recommend that the right not be issued or that any use granted be conditioned on minimum flows. In most cases Ecology will accept WDFW's recommendation and condition the right in such a way that flows are protected. A permit is approved granting an interruptible right.

Groundwater Allocations (water right permit)

New applications for ground water rights are, generally, subject to the same requirements as for surface water rights. All applications are reviewed by WDFW. The four-part test is applied. If there is a concern that water uses might adversely impact fish, for example due to hydraulic continuity, WDFW will recommend that the right not be issued or that any use granted be conditioned on minimum flows. In most cases, Ecology will accept WDFW's recommendation and condition the right in such a way that flows are protected. The impact of a ground water withdrawal on a surface water body (stream or lake) through hydraulic continuity is generally estimated based on aquifer characteristics and accepted hydrogeologic study methods.

Historically few approved ground water uses were issued interruptible with a condition on instream flows. After the 1980's that practice changed. The science of ground water development and tools for assessing ground water flow became more advanced. Moreover, Ecology's understanding of the law on ground water hydraulic continuity was shaped, in part, by the Supreme Court's decision in *Postema v. Ecology* (2000). Now a

ground water development's impact to existing wells and surface water sources is evaluated within the impairment analysis.

Groundwater Allocations (permit exempt)

New ground water can be obtained from permit-exempt wells under specific conditions (RCW 90. 44.050). The groundwater permit exemption is an exemption from a water right permit application; all other water laws and regulations still apply. Currently, the local health district and building permit officials determine when permit exempt wells can be used. In general, there are few restrictions on location except for sanitary setbacks.

As a water right, use of a permit exempt well can be regulated in favor of senior rights if it impairs an existing right, including instream flows. Historically, Ecology has rarely regulated these water rights to protect senior water rights.

Changes or Transfers of Water Rights (Water Right Permits)

Existing water rights can be changed or transferred pursuant to chapters 90.03 and 90.44 RCW.

Reservations of water

There are no existing reservations of water within WRIA 46.

Closures of water sources in WRIA 46

There are no streams currently closed to future appropriations in WRIA 46. Closures are based on a finding of no water availability, generally because the available supply has been fully allocated.

RULE IMPACTS TO WATER RIGHT ADMINISTRATION

The future water right management program under the proposed rule can be broken down as follows:

Surface Water Allocations (water right permit)

New applications for surface water rights will still be forwarded to the WDFW for review and comment and the four-part test will be applied. In cases where the proposed withdrawals may impact instream needs, WDFW will recommend that the right not be issued or that any use granted be conditioned on minimum flows. In most cases Ecology will accept WDFW's recommendation and condition the right in such a way that flows are protected. Under the baseline, this is not likely to be a change. The proposed rule will ensure uniformity and consistency in flow determinations and resultant instream flow provisos.

Groundwater Allocations (water right permits)

New applications for ground water rights are, generally, subject to the same requirements as for surface water rights. The four-part test is applied. All applications will still be reviewed by WDFW and if there is a concern that water uses might adversely impact fish, WDFW will recommend that the right be so conditioned or as provided for in the instream flow rule. In most cases, Ecology will accept WDFW's recommendation and

condition the right in such a way that flows are protected. The impact of a ground water withdrawal on a surface water body (stream or lake) through hydraulic continuity will generally still be estimated based on aquifer characteristics and accepted hydrogeologic study methods. If the proposed appropriation were to capture water, that would otherwise contribute to instream flows, the permit approval would be conditioned as interruptible to protect against impairment of the instream flow right.

As mentioned above, groundwater rights are subject to the same requirements as for surface water rights. However, in the past, groundwater rights have not been conditioned due to the difficulty in knowing impacts to surface sources based on the degree of continuity. The proposed rule clarifies the applicant's responsibility in demonstrating that groundwater extraction will not impair other rights. However, the impact created on the surface water source via hydraulic continuity is not necessarily impairment. A separate statutory requirement exists to analyze the possibility of impairment from withdrawals of ground and surface waters in continuity. This proposed rule does not affect this statutory requirement.

Groundwater Allocations (permit exempt)

The reservation of permit-exempt ground water for future domestic, stockwatering, irrigation, commercial agriculture and commercial and light industrial uses will provide for a management framework for these types of withdrawals. If there is no reservation in effect, then legally only interruptible new permit-exempt wells would be drilled in the basin or they would be denied. If the reservation is in effect, and water is being used, there are still several water management conditions that may have an impact on water use including restrictions on outdoor use.

For individuals and business entities, there are several alternatives. Applicants may choose as a first order of business to solicit a hydrogeologist to certify that a well would not cause an impairment of a water right in those areas where hydraulic continuity is unlikely. This would allow an applicant to develop a well without the limitations imposed by the baseline instream flows and without the limitations imposed by the proposed rule. However, the applicant would bear the additional cost of the analysis. For those applicants wishing to use water in areas with a likelihood of hydraulic continuity and consequently, impairment of instream flows, they could get water from the reservation or accept an interruptible water right.

Changes or Transfers of Water Rights

Existing water rights can continue to be changed or transferred pursuant to chapters 90.03 and 90.44 RCW. Changes to surface water rights will continue to include consideration of the instream flow right. Transfers of point of diversion downstream or upstream on a source may be restricted based on in-stream flows from the rule the same as under the baseline. Changes in point of diversions from a surface point to a ground water point from the same water source will probably not be impacted by the rule.

Reservations of water

The reservation of water, use of water under the reservation and associated conditions for that use are all new proposals. In large measure, the reservation will allow use of permit-exempt wells without them being subject to the instream flow right. These uses are subject to certain limitations as follows:

- (1) The quantities of reserved ground water are set by type of use and location in rule.
- (2) A water right permit issued from the reserve must be consistent with the requirements of RCW 90.03.290.
- (3) All water uses from the reserve must be implemented using water use efficiency and conservation practices consistent with the watershed plan.
- (4) This reservation of water shall only be put to beneficial use within the stream management units defined by this chapter. Applications for diversion or withdrawal of water for purposes outside of the stream management units defined in this rule shall be denied by the department.

If the proposed rule goes into effect, then use of the permit-exempt well water will now have to be obtained from a reservation if year-around use is desired. Businesses that elect to install permit exempt wells for their own moderate needs or to develop saleable land will face more choices as to their best option. After the rule is adopted, the project proponent may choose other methods of water well development to meet their needs and avoid limitations imposed by the rule.

The proposed rule also proposes a future stock watering reservation for stock water as directed by RCW 90.22.040. Future stock watering in the proposed rule is accessed via either a diversion structures or wells and relates to normal grazing activities for the surface water use. In addition, RCW 90.44.050 provides an exception to the requirements for a ground water right permit for stockwater. The rule sets a volume limit on this use of water but otherwise does not change the existing situation.

Closures of Water Sources in WRIA 46

No closures are proposed for any subbasins in WRIA 46.

Maximum Allocation

There is a maximum interruptible allocation of between 25 and 100 CFS proposed in the rule but this is also part of the baseline.

PROPOSED RULE (CHAPTER 173-546 WAC)

The complete rule language for establishing instream flows in WRIA 46 can be found in proposed Chapter 173-546 WAC. The following provides a brief description of the rule and further discussion of those specific rule provisions that may impact instream flows and/or out-of-stream uses of water. The proposed rule is compared with water management assuming the existing management structure (i.e that no instream flow rule

is in place). As mentioned previously, no direct impacts to existing water rights holders is anticipated.

Chapter 173-546-010 General provisions-Authority and Applicability

The rule applies to all surface waters and groundwater in hydraulic continuity with the surface water within the Entiat River Basin, also known as Water Resources Inventory Area (WRIA) 46 as defined in WAC 173-500-070.

Conclusion: No significant economic impact.

Chapter 173-546-020 Purpose

The purpose of the proposed rule is to develop a program for future water use and minimum instream flows. The proposed rule includes a reservation of water for future domestic, agricultural, commercial/industrial and other beneficial uses.

Conclusion: The creation of the reservation, etc. may have impacts, but are considered below. No significant economic impact from this section.

Chapter 173-546-030 Definitions

See the proposed rule.

Conclusion: No significant economic impact.

Chapter 173-546-040 Establishment of stream management units

The proposed rule outlines three stream management units.

Conclusion: No significant economic impact.

Chapter 173-546-050 Establishment of instream flows

This section establishes the specific minimum instream flows required for WRIA 46 on a bi-weekly or monthly basis for the specific control points. The proposed rule will apply to all surface waters and groundwaters in hydraulic continuity within the Entiat River basin (WRIA 46). Specific instream flow standards are set for the Lower and Upper Entiat, and the Mad River.

These flow standards will be the basis for determining when instream flow levels are not being attained and when junior water users (whose use influences flows) will be required to reduce or curtail use. All water rights granted after instream flows are established will be considered "junior" to the instream flows.

Conclusion: Establishment of minimum instream flows may limit the availability of water for future appropriations depending on the baseline. The reservation will allow for some exemptions. This may have significant economic impacts-see "Rule Impacts to Water Right Administration."

Chapter 173-546-060 Lakes and ponds

Lakes and ponds in the Entiat watershed shall be retained substantially in their natural condition.

Conclusion: Already a directive in statute-no significant economic impact.

Chapter 173-546-070 Reservation of water for specific future uses

The department is proposing creation of a reservation of non-interruptible water, up to 5 cubic feet per second for future beneficial uses. The uses shall have the following allocation; 1 CFS for domestic, stock-watering and outdoor irrigation, 1 CFS for commercial and light industrial uses and 3 CFS for commercial agriculture. The reserve will be senior to in-stream flows and therefore rights obtained through the reserve will be uninterruptible. The amount to be deducted per day for residential use accounting purposes will be 35 gallons per capita. Commercial, agricultural and manufacturing uses will be accounted for using other procedures and will only be available in the lower basin. There is a hierarchy of use including domestic and stock-watering, followed by commercial/agricultural and lastly, commercial/light industrial. The department shall provide notification as resource is allocated from the reserve.

Conclusion: The reservation creation could have impacts. Existing permit-exempt well uses may experience change depending on the baseline. Commercial and agricultural uses may be able to get uninterruptible water. There are likely to be significant economic effects.

Chapter 173-546-080 Maximum future allocation

Additional water is available for appropriation outside of the reservation but will be interruptible, subject to minimum instream flows. The amounts vary between 25 and 100 CFS. A determination of water availability will still require that the four-part test be satisfied. Metering will be required of all permitted uses.

Conclusion: Interruptible rights would be available without the rule. This is unlikely to have significant economic effects.

Chapter 173-546-090 Future permitting actions

Surface and groundwater flows are not subject to instream flows if the proposed use is non-consumptive, or qualifies for the reservation. Interruptible rights may be approved subject to instream flows and maximum water allocation limits. All groundwater in the basin is considered to be in hydraulic continuity with the lower and upper portions of the river and will be subject to the flows unless Ecology determines otherwise. Uses outside the reservation water will therefore be conditioned on instream flows unless provided for otherwise.

Conclusion: Without the rule, continuity would be decided on a case by case basis for non-exempt wells. However, it is likely that Ecology would use the information from the plan to inform decision-making such that conditioning would occur either way. Exempt wells would likely not be conditioned since there is no permit to condition.

Chapter 173-546-100 Alternative sources of water

There is a continued need for use of alternative sources of water including multipurpose storage facilities, conservation and efficiency and acquisition, leasing and establishment of a trust water rights program. Mitigation is allowed.

Conclusion: No significant economic impact.

Chapter 173-546-110 Future changes and transfers

No changes or transfers will be approved that conflict with this chapter.

Conclusion: This may restrict transfers that would have occurred absent the rule depending on the baseline. This may have a potentially significant economic impact. See "Rule Impacts to Water Right Administration."

Chapter 173-546-120 Compliance and enforcement

The department in conjunction with others shall prepare technical and educational documents regarding the scope and requirements of the chapter. Ecology will also attempt to get voluntary compliance before using sanctions as allowed by law.

Conclusion: Producing educational materials will be a cost and benefit associated with the rule.

<u>Chapter 173-546-130 Appeals</u>

All decisions made by Ecology shall be subject to review by the pollution control hearings board as per current law.

Conclusion: No significant economic impact.

Chapter 173-546-140 Regulation review

Ecology shall review the rule whenever it is deemed appropriate.

Conclusion: No significant economic impact.

Chapter 173-546-150 Map

Conclusion: No significant economic impact.

APPENDIX C-DISCUSSION OF COMPLIANCE COSTS FOR WRIA 46 BUSINESSES-ALTERNATIVE BASELINE INTRODUCTION

A significant component in describing the impacts of the proposed rule involves describing the baseline from which the change caused by the rule is measured. In the case of the Entiat River, there is no existing in-stream flow rule in place. The Watershed Planning Act, requires that Ecology complete an instream flow rule when planning units propose flows and meet the requirements of RCW 90.82.080 and indicates that the rule is not considered "a significant legislative rule." The Planning unit has met these requirements and so one baseline could be considered to be an instream flow rule similar to the proposed rule but without the proposed reservation. This was considered previously.

However, it is always possible that an instream flow rule would not be put forward even if the proposed rule was not adopted. In this case, the existing water management scenario would continue into the future. In order to better inform the rulemaking, Ecology has elected to provide additional information assuming no rule is put into place if the proposed rule is not adopted (hereafter referred to as the "existing scenario") and this analysis is provided below.

WATER RIGHT ADMINISTRATION UNDER THE RULE

The proposed instream flow rule (WAC 173-546) will create a water right protected from impairment by those junior in priority date to the instream flows. The rule will also create a reservation and consider other requirements that might affect future uses. Expected impacts to water management include the following:

<u>Surface Water:</u> The decision process for surface water rights will be the same under the existing management scenario or with the proposed rule. Under the existing management scenario, Ecology would likely grant an interruptible right unless the water was obtained through the reservation. All new surface water rights, that do not use the reservations as their source, would be conditioned on instream flow levels per WDFW and would be required to stop withdrawing water when minimum flows are not met in the surface water source. This is not likely to represent a significant change under the proposed rule since they would be likely subject to similar instream flows with or without the proposed rule. Applications for new consumptive surface water rights may be approved if it is "clear that overriding considerations of the public interest will be served." (RCW 90.54.020(3)(a)).

<u>Groundwater:</u> The decision process if the proposed rule is in effect, is the same as prior to the rule. Groundwater applications in hydraulic continuity with the Entiat River or its tributaries would be conditioned on instream flows under the existing management scenario and the proposed rule unless they elect to obtain water via the reservation. A use may be approved if it is "clear that overriding considerations of the public interest will be served." (RCW 90.54.020(3)(a))

Based on the analysis and recommendations in the Entiat WRIA management plan regarding the hydrogeology of the basin, and the location and depth where groundwater withdrawals generally occur, future groundwater withdrawals have a likelihood of capturing water that would result in impacts to surface water flows and levels in the Entiat River Basin. The rule does not create the need for, and does not change the standards for, the analysis regarding whether these impacts cause impairment. However, businesses that initiate new agricultural, commercial, or manufacturing projects relying on wells for process water would be required to suspend water use during periods of low flows, develop storage mechanisms or to develop mitigation strategies acceptable to Ecology that allow them to mitigate their impacts if water is obtained outside the reservation.

<u>Permit-Exempt Groundwater:</u> A reservation of ground water for the future uses of residential, commercial, industrial and agricultural uses provides a management framework for these types of withdrawals. For businesses interested in using an exempt well, there would be several alternatives. Applicants could solicit a hydrogeologist to certify that a well would not cause impairment of a water right in areas where hydraulic continuity between the surface water and groundwater is not likely. This would allow an applicant to develop a well as though the rule was not in place, but at the additional cost of the analysis. For wells that would be drilled in areas where they are likely to be in hydraulic continuity with streams with instream flows, and impairment would result, options include obtaining water from the reservation or accepting an interruptible water right with corresponding curtailment or storage. Under the existing management scenario, the applicant would likely be able to get an exempt well with no restrictions on use except those in RCW 90.44.050.

<u>Changes or Transfers of Water Rights</u>: Existing water rights will continue to be changed or transferred as permitted by Chapters 90.03 and 90.44 RCW, but the process may change since Ecology cannot currently deny a permit if no instream flow rule is in place and there is a concern a transfer might affect minimum flows. The proposed rule could lead to a denial of a proposed transfer if there is a concern that it might impair the flows. Requirements related to changes in the point of diversion from a surface point to a ground water point if it is from the same water source and would not impair instream flows could be restricted based on instream flows.

<u>Reservation of water</u>: The reservation of water, use of water under the reservation, and associated conditions for that use, are all part of the rule proposal. In large measure, the reservation will allow residential, commercial, industrial and agricultural development to access uninterruptible water rights with the benefit of having a continuous, reliable source of water during low flow periods, except for a few restrictions. These restrictions include a limit on irrigation, and the finite quantity of the reservation. Domestic water use must also meet efficiency standards. This would result in little change for exempt well users, but will likely be significant for permitted uses.

IMPACTS TO BUSINESSES IN WRIA 46

As described above, the primary impact to businesses of the proposed rulemaking will likely be the creation of a reservation for future allocations. Existing water rights holders will not be directly affected. The economic costs to businesses are determined based on if businesses benefit from having more water in the river or more available for out of river use. In general, the impacts are likely to be limited. Having the reservation makes more water available for out of stream uses than would have been the case and so it is likely businesses will be positively affected. The only exception to this would be businesses that utilize water in the river. More specifically, the following impacts are possible:

1. Impacts to businesses depending on instream flows

As mentioned above, a reservation is to be created from which those seeking a domestic, commercial or agricultural water source and meeting the requirements will be able to obtain water in the future. Accessing the reservation will allow entities to use water during low flow periods. This may slightly reduce the amount of water in the river during certain low flow periods and could potentially indirectly impact instream benefits such as ecosystem services, recreation, etc. For businesses that provide guide services such as rafting, fishing and bird watching, or those dependent on dilution for waste removal, there could be a very minor impact. However, discussions with local interests indicate little, if any, business impact from the proposed flow reduction from the reservation.

- 2. Creation of the reservation: Under the existing management scenario any future permitted surface or groundwater withdrawal within the Entiat River or its tributaries, would likely be legally required to curtail use during low flow periods. Under the reservation, the future needs of residential, commercial, industrial and agricultural uses could be met even during low flow periods. For businesses requiring water in quantities requiring a permit, the ability to use water during low flows should be a net benefit from this rulemaking. The creation of water for stockwatering will likely provide year-around access to water for new stockwatering uses, except for feedlots and other activities which are not related to normal grazing uses. The component of the rule should be a net benefit to stock-related businesses. Those installing an exempt well for the domestic needs of businesses or as part of residential development should not be significantly affected since in most cases, they can be installed under the existing management scenario.
- 3. Restrictions on transfers: Under the existing management structure, Ecology cannot restrict transfers based on instream flows since there is no water right to protect. If the proposed rule goes into effect, then transfers could be denied if there is a concern that instream rights could be impaired. This may reduce the amount of transfers that might occur in the watershed and could potentially impact businesses.

4. Impacts to existing permitted water rights

Allowing access to water from the reservation that allows water withdrawals could affect the value of existing permitted water rights held by some businesses. The exact effect will depend on the allowable use, volume and point of diversion of existing rights, existing uses and the desired uses and volumes of proposed rights.

COST TO FIRMS AND REQUIRED PROFESSIONAL SERVICES

As mentioned above, the impacts of the proposed rule will most likely be experienced by those business entities that depend on more water in the river, are restricted in transferring water or the beneficial impacts of those businesses that would obtain water from the reservation. The following cost analyses required in RCW 19.85 have been determined:

Reporting and Recordkeeping: No additional reporting or recordkeeping will be required.

Additional Professional Services: Some may save the costs associated with mitigation options such as construction of storage tanks and associated piping requiring engineering design services if access to the reservation allows them to avoid these requirements. Those that would have transferred rights might avoid the use of hydrogeologists, biologists, engineers and attorneys.

Costs of Equipment, supplies, labor, and increased administrative costs: No additional equipment, supplies, labor or administrative costs are anticipated. As mentioned above, if some applicants are able to avoid a more sophisticated conservation or water use system, this may decrease the cost of professional services and equipment.

Other Compliance Requirements: As mentioned above, the likely adverse impacts under the existing management scenario baseline is likely to be firms that depend on instream activities and that are restricted in transferring water or existing water right holders. The effects of less water in the river would be specific to the firm and is likely to be small or negligible.¹¹

Existing water right holders could be impacted if the value of their water right changes as a result of this rule. This would ultimately only affect those that want to transfer or lease a right and only for the period of the reservation. The exact cost impact is difficult to determine since it depends on many factors but only two transfers have been executed in the past ten years. If this rate continues, it is unlikely to be significant. Moreover, the reservation would tend to increase the availability of water relative to the baseline and decrease the incentive to transfer water in the future. Transfers might also be restricted by the proposed rule due to instream flows. The exact impact of this requirement is unlikely to be significant again due to the fact that the reservation will likely increase the amount of water available for out of stream uses. The exact impact will depend on the proposed use, the volume of water and the location.

Creation of the reservation should be a net benefit for most businesses that need water. Water that is not available during low flow periods is damaging to any business that needs it for its own use or who are looking to develop residential properties. In order to have water available during low flow periods under the existing management scenario, water would have to be obtained though leases, transfers or on-site storage. For most permitted users, the cost of storage would likely preclude it as an option. Agricultural

_

¹¹ Conversations with local interests indicate few commercial activities dependent on instream flows.

users would likely be required to purchase or transfer water absent the proposed rule. The median quantity of irrigation water requested from pending applications amounts to approximately 13 acre-ft. Agricultural water ranges in value from \$40-\$120/ acre-ft. ¹² Using a mean value of \$80/acre-ft would yield an avoided cost of between \$960 and \$1040 per year for every low flow year. This analysis assumes that water would be readily available to be transferred or leased. If this was not the case, then prices would likely be significantly higher. The stockwatering reservation could yield an avoided cost depending on the volume of water, but likely to be of similar unit cost. For those that do not require water for domestic needs during low flow periods, an interruptible right remains an option under both the current and proposed rule.

For domestic permit-exempt uses, there would not likely be a significant impact.

REVENUE IMPACTS AND DISTRIBUTION OF COSTS

RCW 19.85.040 requires that additional analysis of impacts be provided. Specifically, the analysis should include whether compliance with this rule will cause businesses to lose sales or revenue and whether the proposed rule will have a disproportionate impact on small business. It is the purpose of this section to evaluate the proposed rules to consider these requirements.

REVENUE IMPACTS

As noted previously, the most significant impacts are associated with decreased flows in the river, restrictions on transfers and the creation of the reservation. The reduction of flows in the river is unlikely to significantly affect any firms along the Entiat. However, those firms that will now be able to access water from the reservation will experience a benefit from now being able to access water without purchasing other water or constructing expensive storage alternatives required under the existing management scenario. In that sense, the rule will represent a negative cost (net benefit) to firms. The net benefit to firms is the value of avoiding purchasing or leasing water rights, expensive on-site storage or other mitigation alternatives to access water during periods of low flows. This will likely lower costs to some potential water users and to that extent, may increase revenues. Restrictions on transfers may be a cost impact but is unlikely to be significant if the previous transfer rate is any indication of the future. Existing water rights holders might see some reduction in the value of existing water rights and this would lower revenues. However, as mentioned above, this effect is likely to be relatively small and is not further considered.

DISTRIBUTION OF COMPLIANCE COSTS

The main impacts of this rule will be on those permitted uses that will be able to get water via the reservation or that desire to transfer water. In general, it is difficult to know who will be obtaining water this way. Many irrigators involved in agricultural operations are already on the pending water permit application list. In almost all cases, these are small business entities. Existing businesses in the area or new businesses could also elect

¹² Based on Columbia River Basin Project for Water from "Economics of the Columbia River Initiative."

to apply for permits which might affect this. However, in general, the reservation will result in only benefits to businesses and will be disproportionately beneficial to small businesses. Transfers and the value of existing rights could be affected by the rule but these effects are likely to be moderate.

CONCLUSIONS

The analysis under this baseline of the proposed rule indicates that it will likely still result in net benefits to businesses. Restrictions on transfers and potential impacts to existing business permit holders could affect either small or large businesses and depend on the location, proposed change, size of firm and use. These impacts are anticipated to be small.